

## CLAIMS

1. A non-human animal model non-responsive to mycobacterial lipoproteins/lipopeptides, wherein the function of the gene encoding a protein specifically recognizing mycobacterial lipoproteins/lipopeptides is deleted on its chromosome.
2. The non-human animal model non-responsive to mycobacterial lipoproteins/lipopeptides according to claim 1, wherein the function of the gene encoding a protein specifically recognizing synthesized tri-acylated lipopeptides is deleted on its chromosome.
3. The non-human animal model non-responsive to mycobacterial lipoproteins/lipopeptides according to claim 2, wherein the synthetic tri-acylated lipopeptide is a N-palmitoyl-S-dilaurylglyceryl.
4. The non-human animal model non-responsive to mycobacterial lipoproteins/lipopeptides according to any one of claims 1 to 3, wherein the protein specifically recognizing mycobacterial lipoproteins/lipopeptides is TLR1.
5. The non-human animal model non-responsive to mycobacterial lipoproteins/lipopeptides according to any one of claims 1 to 4, wherein the non-human animal is a rodent.
6. The non-human animal model non-responsive to mycobacterial lipoproteins/lipopeptides according to claim 5, wherein the rodent is a mouse.

7. The non-human animal model non-responsive to mycobacterial lipoproteins/lipopeptides according to claim 6, wherein the mouse is a TLR1 knockout mouse generated by constructing a targeting vector by substituting a whole or a part of the gene fragment of the gene site including the intracellular and transmembrane domain of the TLR1 gene, obtained from screening TLR1 genes from murine genomic library by using a probe from mouse EST clones; by linearizing the targeting vector and injecting it into embryonic stem cells, by microinjecting the targeted stem cells wherein the TLR1 gene function is deleted into the mouse blastocysts to generate chimeric mice; by breeding the chimeric mice and wild-type mice to generate heterozygous mice; and by intercrossing the heterozygous mice.

8. A method for screening substances promoting or suppressing response to mycobacterial lipoproteins/lipopeptides, wherein the response to mycobacterial lipoproteins/lipopeptides in the immunocytes derived from non-human animal non responsive to mycobacterial lipoproteins/lipopeptides according to any one of claims 1 to 7 is measured/estimated, by using the immunocytes, a test substance and a mycobacterial lipoprotein/lipopeptide.

9. A method for screening substances promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides, wherein the response to mycobacterial lipoproteins/lipopeptides of the non-human animal non-responsive to mycobacterial lipoproteins/lipopeptides according to any one of claims 1 to 7 is measured/estimated by using the non-human animal, a test substance and a mycobacterial

lipoprotein/lipopeptide.

10. The method for screening substances promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according to claim 8 or 9, wherein the comparison/estimation with a wild-type non-human animal of its littermate is performed as a control when measuring/estimating response to mycobacterial lipoproteins/lipopeptides.

11. The method for screening substances promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according to any one of claims 8 to 10, wherein the substance promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides is an agonist or an antagonist to TLR1.

12. The method for screening substances promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according to any one of claims 8 to 11, wherein the substance promoting response to mycobacterial lipoproteins/lipopeptides is a therapeutic/preventive agent for mycobacterial infection.

13. The method for screening substances promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according to claim 12, wherein the mycobacterial infection is tuberculous or a mycobacterial infection other than tuberculous.

14. A substance promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides, obtained by the method for screening a substance promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according

to any one of claims 8 to 13.

15. The substance promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according to claim 14, wherein the substance promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides is an agonist or antagonist to TLR1.

16. The substance promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according to claim 14 or 15, wherein the substance promoting the response to mycobacterial lipoproteins/lipopeptides is a therapeutic/preventive agent for mycobacterial infection.

17. The substance promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides according to claim 15, wherein the mycobacterial infection is tuberculous or a mycobacterial infection other than tuberculous.

18. A therapeutic/preventive agent for mycobacterial infection containing TLR1 and TLR2 expression systems.

19. The therapeutic/preventive agent for mycobacterial infection according to claim 18, wherein the mycobacterial infection is tuberculous or a mycobacterial infection other than tuberculous.